

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (Canceled).

Claim 25 (New): A packet communication network that is connected to a first external network and a second external network, and that executes packet communication between the first external network and the second external network, the packet communication network comprising:

a parallel network constituted by a plurality of any one of physically and logically independent networks;

at least one classifier that is connected to the first external network and to each of the networks in the parallel network, and that classifies a packet received from the first external network to one of the networks in the parallel network; and

at least one multiplexer that is connected to each of the networks in the parallel network and to the second external network, that multiplies packets received from a plurality of networks in the parallel network, and that outputs a multiplexed packet to the second external network.

Claim 26 (New): The packet communication network according to claim 25, wherein the classifier classifies a packet according to a feature amount of a form of the packet.

Claim 27 (New): The packet communication network according to claim 26, wherein the feature amount is a packet length of the packet.

Claim 28 (New): The packet communication network according to claim 25, wherein the classifier classifies a packet according to a feature amount of contents of the packet.

Claim 29 (New): The packet communication network according to claim 28, wherein the feature amount is a DiffServ code point of an IP packet.

Claim 30 (New): The packet communication network according to claim 28, wherein the feature amount is any one of a protocol number of an IP packet, a destination port number of a UDP packet, and a destination port number of a TCP packet.

Claim 31 (New): The packet communication network according to claim 26, wherein the classifier classifies the packet according to a time series change in a sum of data amounts of packets having an equal feature amount.

Claim 32 (New): The packet communication network according to claim 28, wherein the classifier classifies the packet according to a time series change in a sum of data amounts of packets having an equal feature amount.

Claim 33 (New): The packet communication network according to claim 25, wherein the classifier includes a detector that detects a status of traffic of each of the networks in the parallel network, and classifies a packet according to the status of the traffic.

Claim 34 (New): The packet communication network according to claim 25, wherein the networks in the parallel network are logically grouped into a plurality of groups so that each of the groups includes a plurality of networks that are physically same.

Claim 35 (New): The packet communication network according to claim 34, wherein each of the groups includes a unit that dynamically changes an allocation of bands to each of the networks in the group.

Claim 36 (New): The packet communication network according to claim 25, wherein the multiplexer preferentially processes a packet received from a specific one of the networks in the parallel network.

Claim 37 (New): The packet communication network according to claim 25, wherein the multiplexer preferentially processes a packet having a predetermined feature amount.

Claim 38 (New): A packet communication method realized on a packet communication network that is connected to a first external network and a second external network, and that executes a packet communication between the first external network and the second external network, wherein the packet communication network includes

a parallel network constituted by a plurality of any one of physically and logically independent networks;

at least one classifier that is connected to the first external network and to each of the networks in the parallel network; and

at least one multiplexer that is connected to each of the networks in the parallel network and to the second external network, wherein the packet communication method comprises:

the classifier classifying a packet received from the first external network to one of the networks in the parallel network;

each of the networks in the parallel network transferring the packet; and

the multiplexer multiplexing packets received from a plurality of networks in the parallel network and outputting a multiplexed packet to the second external network.

Claim 39 (New): The packet communication method according to claim 38, wherein the classifier classifies a packet according to a feature amount of a form of the packet.

Claim 40 (New): The packet communication method according to claim 39, wherein the feature amount is a packet length of the packet.

Claim 41 (New): The packet communication method according to claim 38, wherein the classifier classifies a packet according to a feature amount of contents of the packet.

Claim 42 (New): The packet communication method according to claim 41, wherein the feature amount is a DiffServ code point of an IP packet.

Claim 43 (New): The packet communication method according to claim 41, wherein the feature amount is any one of a protocol number of an IP packet, a destination port number of a UDP packet, and a destination port number of a TCP packet.

Claim 44 (New): The packet communication method according to claim 39, wherein the classifier classifies the packet according to a time series change in a sum of data amounts of packets having an equal feature amount.

Claim 45 (New): The packet communication method according to claim 41, wherein the classifier classifies the packet according to a time series change in a sum of data amounts of packets having an equal feature amount.

Claim 46 (New): The packet communication method according to claim 38, wherein the classifier detects a status of traffic of each of the networks in the parallel network, and classifies a packet according to the status of the traffic.

Claim 47 (New): The packet communication method according to claim 38, wherein the networks in the parallel network are logically grouped into a plurality of groups so that each of the groups includes a plurality of networks that are physically same.

Claim 48 (New): The packet communication method according to claim 47, wherein each of the groups includes a unit that dynamically changes an allocation of bands to each of the networks in the group.

Claim 49 (New): The packet communication method according to claim 38, wherein the multiplexer preferentially processes a packet received from a specific one of the networks in the parallel network.

Claim 50 (New): The packet communication method according to claim 38, wherein the multiplexer preferentially processes a packet having a predetermined feature amount.